Appendix A

Needs Assessment Process

Needs Assessment Process

The Washington State Adolescent Needs Assessment is a summary of the issues affecting Washington's adolescents. The Needs Assessment report was developed to provide baseline information for the Washington State Partnership for Youth (WSPY) as part of their efforts to develop a state plan to improve the health of Washington's youth. It is intended to be a companion data document for the final WSPY state plan, scheduled to be released in late 2006.

As part of that process, a WSPY Needs Assessment Committee identified, gathered, and analyzed data on adolescent health needs in the state of Washington. The objectives of the Needs Assessment were to:

- Create a profile of the adolescents living in Washington.
- Describe the current status of adolescent health.
- Identify gaps and barriers to health.

The data included in this report are not intended to be comprehensive but rather to provide a picture of adolescents in Washington State. The report represents an important piece of information for the development of a statewide plan to improve the health and well-being of Washington State adolescents**.**

Methods:
The Needs Assessment process used multiple approaches for gathering information on the needs of adolescents including literature review, nominal group process, review of existing data sources, key informant interviews, focus groups and surveys.

There are three components of the Washington Adolescent Needs Assessment.

- **Data Summary**: Initial data gathering occurred in 2004 and in 2005, a common data presentation format was identified and the data were updated and compiled into one document. The data for this section includes highlights of major health and behavior issues for adolescents in Washington State. A common format is used when possible to allow for easier comparison across issues**. The 21 Critical Health Objectives for Adolescents** are highlighted in this section. The data for this section are organized into 9 main domains, based upon the recommendation from the Needs Assessment Steering Committee.

Domains:
Demographics and Access
Sexual Health
Nutrition and Physical Activity
Unintentional and Intentional injury
Drugs, Alcohol and Tobacco
Mental Health
Environmental Health
Oral Health
School achievement and climate

- **Services Section:** The second section, Publicly Funded Social and Health Services, describes several social, medical and preventive health services pertinent to adolescents in Washington. This section is part of a larger report being published by the Washington State Department of Health's Office of Maternal and Child Health. It is intended to monitor the state's capacity to address the health needs of the MCH population in Washington. Each chapter addresses what the service is, how or where it is provided, who is eligible for the service, who is receiving the service, and what issues or concerns exist regarding the service. As this is the first time all of this information has been provided in a single location and format, some inconsistencies persist, and it is likely that some services which should have been included were overlooked. We hope to continue to update this section over time.

- **Findings from Washington Adolescent Focus Groups:** This section includes qualitative information gathered from three sets of focus groups with adolescents and parents, conducted in 2004 and 2005. The first two sections were conducted by contractors for the Washington State Department of Health – one focused on defining a healthy adolescent and the second identifies strategies for impacting abstinence education through a media campaign. The third set of focus groups was implemented by WSPY and targeted a diverse group of youth and adult participants with a focus on promoting adolescent health.

Needs Assessment Guidance:
The Needs Assessment was initially planned by the WSPY Needs Assessment Committee which consisted of members from multiple organizations, agencies or associations that were geographically dispersed across the state. Most self-initiated membership through recruitment from WSPY. Some members were specifically recruited because they represented an organization or state location that was underrepresented. The committee met bi-monthly from January 2004 through August 2004 and presented initial findings in mid- 2004. The WSPY Steering Committee provided oversight and guidance to the Needs Assessment Committee throughout the duration of its existence.

Nominal group process:
The initial Needs Assessment Committee meetings served as brainstorming sessions and review of materials from the Washington Adolescent Health Summit (Fall, 2003), Healthy People 2010 National Initiative to Improve Adolescent Health, six state adolescent health plans (Colorado, California, Alaska, Wisconsin, Hawaii, and Minnesota), and expert opinions of the Needs Assessment Committee. From this, a list of subject areas to be explored was developed. They included:

- Physical and emotional growth and development
- Sexual health, teen pregnancy, sexual orientation
- Drugs, alcohol, and tobacco
- Eating, nutrition, obesity and physical education
- Mental health, depression and suicide
- Violence and unintentional injury
- Oral health
- Environmental health
- School achievement
- Demographics- determine who youth are and where they are located, trends
- Access to health care- insurance coverage, resources, utilization
- Disparities: minorities and special needs and disabilities

These priority areas are consistent with the **Leading Health Indicators for Healthy People 2010.** The Leading Health Indicators highlight major health priorities for the Nation and include the individual behaviors, physical and social environmental factors, and health system issues that affect the health of individuals and communities.

Leading Health Indicators for Healthy People 2010	
Physical activity	Mental health
Overweight and obesity	Injury and violence
Tobacco use	Environmental quality
Substance abuse	Immunization
Responsible sexual behavior	Access to health care

21 Critical Health Objectives for Adolescents and Young Adults: The Washington Adolescent Needs Assessment is consistent with the 21 National Critical Health Objectives for Adolescents and Young Adults developed by Healthy People 2010.

The nominal process continued throughout the needs assessment.

Key informant interviews/community input:

After the list of topic areas was developed and had received WSPY steering committee approval, the needs assessment group divided into smaller sub-groups to collect data. A series of questions were identified to guide data collection and key informant interviews. Key informant interviews were performed by committee members to locate other data sources, gather data, and to discuss interpretations of data.

In Fall 2005, WSPY held two statewide Summits in order to gather input from stakeholders on the direction and priorities for WSPY and the adolescent state plan. The draft Needs Assessment was provided to individuals attending the two summits. Roundtable sessions on the data were held at the Summits. The information from the Summits was used to supplement the Needs Assessment.

Focus Groups:

It was also determined that input from parents and youth was needed to assess if the topic areas and data collected addressed their needs. Focus groups with adolescents and parents supplemented the findings of the needs assessment.

Literature review:

In certain areas, there was limited data available and/or a need for national perspective. Literature reviews within topic areas were performed by committee members as needed to supplement data collection and disparity issues.

Surveys:

Concurrent with the Needs Assessment process, the Washington State Department of Health Office of Maternal and Child Health conducted surveys of county public health nurses and MCH staff to seek input on identifying emerging issues and needs for the MCH populations. One survey asked nurse supervisors to prioritize health needs for children and youth in their community.

Appendix B

Data Sources

Technical Notes

Definitions

Selected Data Sources

Behavioral Risk Factor Surveillance System (BRFSS): BRFSS is a national telephone survey of adults 18 and over who live in households with telephones. BRFSS monitors modifiable risk factors for chronic diseases and other leading causes of death, including nutrition, exercise, tobacco use, injury control, and use of preventive services as well as knowledge and attitudes, demographics, general health status and access to health care. Topics vary by year as well as whether they are core CDC topics or state-added modules. Households are randomly selected to be called and then, once reached, one adult from the household is randomly selected to be interviewed. Data are not available at the county level. The Washington State BRFSS website is http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/BRFSS/BRFSS_homepage.htm
The CDC BRFSS website is http://www.cdc.gov/brfss/

Birth Certificates: Birth certificates are completed for all births that occur in Washington State. Births that occur to Washington residents in other states are added to the data files. Data presented in this report reflect information on Washington residents whether they delivered in WA or elsewhere. Information collected includes maternal and paternal demographics, delivery information, medical risks of the mother and selected morbidity of the newborn. For more information about data collected on the Washington State Birth Certificate, see the website http://www.doh.wa.gov/ehsphl/chs/chs-data/birth/bir_main.htm

Information on all births in the United States is collected and reported by the National Center for Health Statistics. Documentation, statistics and reports are available at www.cdc.gov/nchs/births.htm

Current Population Survey (CPS): CPS is a monthly household survey of the non-institutional civilian population in the United States. Most of the information collected is on unemployment and the labor force (including employment benefits, such as health insurance coverage). Supplemental questions related to health have also been asked including tobacco use, fertility, and food security. The CPS Website is http://www.bls.census.gov/cps/cpsmain.htm

Death Certificates: Death certificates are completed for all deaths that occur in Washington State. In addition, deaths to Washington residents that occur out of state are added to the data files. Data presented in this report reflect Washington residents whether they died in Washington or not. Death certificate information includes demographics, characteristics of the death and causes of death. The causes of deaths reported here are classified based on the International Classification of Diseases, Tenth Revision (ICD-10) published by the World Health Organization. Information on this classification as well as continuity with the previous revision is available in the Vital Statistics Technical Note at www.doh.wa.gov/ehsphl/chs/chs-data/TechNote/Tech_not.pdf Additional information about data collected on the Washington State Death Certificate is available at: http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/death/deatmain.htm

Information on all deaths in the United States is collected and reported by the National Center for Health Statistics. Documentation, statistics and reports are available at http://www.cdc.gov/nchs/deaths.htm

Healthy People 2010 Objectives: Healthy People 2010 provides national health objectives for a number of health outcomes to be achieved by 2010. Documentation, baseline data and objectives can be found at http://www.healthypeople.gov/document/

Healthy Youth Survey: The Healthy Youth Survey (HYS) is a collaborative effort of the Office of the Superintendent of Public Instruction, the Department of Health, the Department of Social and Health Service's Division of Alcohol and Substance Abuse, and the Office of Community Development. Data on youth substance use and other health behaviors are needed to support planning and evaluation of science-based prevention and health promotion programs. Historically, numerous surveys were administered by different groups (See description of Survey of Adolescent Health Behaviors and the Youth Risk Behavior Survey). The Healthy Youth Survey was developed to better coordinate survey efforts and minimize the burden on schools. HYS was first administered in October 2002, and will now be administered every two years in the fall. It provides information about adolescents in grades 6, 8, 10 and 12 in public schools in Washington. Schools are randomly sampled and all students in the surveyed grades are asked to respond to the questionnaire. Topics include safety and violence, physical activity and diet, alcohol, tobacco and other drug use, and related risk and protective factors. Documentation and state level data are available at: http://www3.doh.wa.gov/HYS/

National Survey of Children's Health: The National Survey of Children's Health was a telephone survey of a random sample of households with children less than 18 conducted from January 2003-July 2004. One child from the household was randomly selected to be the subject of the survey. The adult most knowledgeable about the child's health is asked to respond to the survey. The survey asked about the physical, social and emotional health of children. The survey was conducted by the National Center for Health Statistics at the Centers for Disease Control and Prevention. The survey used the state and local area integrated telephone survey (SLAITS) methodology. State level data are available. Planning is underway for another National Survey of Child Health to be conducted in 2007. Documentation and reports are available at http://www.cdc.gov/nchs/about/major/slaits/nsch.htm

National Survey of Children with Special Health Care Needs: The National Survey of Children with Special Health Care Needs was a telephone survey conducted from October 2000 – April 2002. A random sample of households was selected and screened to identify children with special needs. The adult most knowledgeable about the selected child's health was asked to respond to the survey which collected information on health insurance, access to services, satisfaction with care and care coordination. The survey was conducted by the National Center for Health Statistics at the Centers for Disease Control and Prevention. The survey used the state and local area integrated telephone survey (SLAITS) methodology. State level data are available. Another National Survey of Children with Special Health Care Needs is underway and data collection will be completed in 2006. Documentation and reports for the 2001 survey are available at http://www.cdc.gov/nchs/about/major/slaits/cshcn.htm Documentation and reports for the 2005-2006 survey are available at http://www.cdc.gov/nchs/about/major/slaits/cshcn_05_05.htm

National Vital Statistics Reports: The National Center for Health Statistics publishes periodic reports based on national birth and death data including annual reports summarizing trends in US births and deaths. Documentation and reports are available at http://www.cdc.gov/nchs/products/pubs/pubd/nvsr/nvsr.htm

United States Census: Current Washington State census data are available from the Washington State Office of Financial Management at http://www.ofm.wa.gov/census2000/index.htm Current United States census data are available from the US Census Bureau at http://www.census.gov

VISTA: VistaPHw is a menu-driven software application that allows the user to analyze population-based health data for Washington. Data available in VistaPHw include vital statistics, hospital discharge data, sexually-transmitted disease data, tuberculosis data and census data. VistaPHw allows analysis of rates by age group, race, gender, time period and geographic location. VistaPHw has been used for some analyses in this report because of the ease of use. In these cases, VistaPHw has been cited as the data source. Some minor differences between analyses using VistaPHw and Vital Statistics data files may occur due to differences in data definitions. Documentation on VistaPHw is available at http//www.doh.wa.gov/OS/Vista/HOMEPAGE.HTM

Washington State Population Survey: The Washington State Population Survey is a telephone survey of a random sample of Washington households which has been conducted every two years since 1998. The survey is coordinated by the Washington State Office of Financial Management. The survey focuses on employment, family poverty, in-migration, health and health insurance coverage. Additional information is available at http://www.ofm.wa.gov/sps/index.htm

School Health Profiles Survey: The School Health Profiles is a CDC sponsored random sampled survey of school principals and health educators of schools that serve students in grades 6 through 12. The Profiles helps state and district education and health agencies monitor the current status of school health education; school health policies related to HIV infection/AIDS, tobacco use prevention, unintentional injuries and violence, physical activity, and food service; physical education; asthma management activities; and family and community involvement in school health programs. State and local education and health agencies conduct the survey biennially at the middle/junior high school and senior high school levels in their states or districts, respectively. Information presented here are from the Spring 2004 administration. More information on this survey is available at: http://www.cdc.gov/HealthyYouth/profiles/index.htm

Survey of Adolescent Health Behaviors: The Survey of Adolescent Health Behaviors in 2000 was a precursor to the current Healthy Youth Survey. The survey was conducted jointly by the Department of Social and Health Services, the Office of the Superintendent of Public Instruction, the Department of Community Trade and Economic Development, and the Department of Health Tobacco Program. The survey was administered during class time to public school students in grades 6, 8, 10 and 12. The sample was stratified by geographic region and school size, and within these cells, where possible, a school was selected from each of three community types: urban, suburban, and rural. All students in selected schools were invited to participate. The survey asked a variety of questions about alcohol, tobacco, and drug use and risk and protective factors.

Youth Risk Behavior Survey: The 2003 National Youth Risk Behavioral Survey was used to provide national comparisons. The 1999 Washington State Youth Risk Behavior Survey (YRBS) was a precursor to the current Healthy Youth Survey based on the Centers for Disease Control and Prevention Youth Risk Behavior Survey instrument. The YRBS is intended to monitor adolescent health-risk behaviors that contribute to morbidity, mortality, and social problems among youth and adults in the United States. The Washington YRBS used a two-stage sampling design: schools were chosen using a probability-proportionate-to-size sampling of all public schools serving children grades 9-12 (which ensured that smaller schools had some chance of selection). Once schools were chosen, a random sample of classrooms was selected within participating schools. A sample of 4,022 adolescents in Washington State public schools participated in the YRBS 1999 survey. Alternative schools serving high-risk youth in the public school system were included. Based on four comparison items that were also administered to a census of eleventh graders in the state

during achievement testing, results seemed to be representative of adolescents in public schools despite the low school participation rate (45%). Additional information on Washington's Youth Risk Behavior Survey is available at www.doh.wa.gov/EHSPHL/Epidemiology/NICE/publications/yrbs99.pdf The CDC YRBS webpage is http://www.cdc.gov/HealthyYouth/yrbs/index.htm

Existing reports:
Many existing reports are used throughout this report. They include:

DATA SUMMARY
Washington State Reports and Information

- *Washington State Department of Health, Vital Statistics (Birth Certificates, Death Certificates, Hospitalization Data)* (http://www.doh.wa.gov/EHSPHL/CHS/CHS-Data/main.htm)
- *Washington State Department of Health Teen Fact Sheets* (http://www.doh.wa.gov/cfh/adolescenthealth.htm): A series of fact sheets designed for teens, family, and community members that are put together by the Dept of Health to highlight the health needs of teens.
- *Washington State Childhood Injury Report 2004* (http://www.doh.wa.gov/cfh/injury/pubs/childhood_injury_report.htm)
- *The Health of Washington State (HWS)* (http://www.doh.wa.gov/HWS/default.htm)
- *Washington State Department of Health Maternal and Child Health (MCH) Data Report, 2003* (http://www.doh.wa.gov/cfh/mchas/mchdatareport/mch_data_report_home.htm)
- *Safe Schools Coalition* (http://www.safeschoolscoalition.org/safe.html)
- *Washington State Office of Superintendent of Public Schools*: (http://www.k12.wa.us/research/default.aspx)
- *Washington State Kids Count "Family Matters: Mental Health of Children and Parents"* (http://hspc.org/publications/pdf/Family_Matters_Brief_0703.pdf)
- *Washington State Department of Labor and Industry: Teen workers* (www.lni.wa.gov/WorkplaceRights/TeenWorkers/)
- *Washington State Injury and Violence Prevention Program Data Summaries (http://www.doh.wa.gov/cfh/Injury/data_tables/table_directory.htm)*
- *Washington State Office of Financial Management data* (http://www.ofm.wa.gov/)
- *Washington State Division of Alcohol and Substance Abuse*: (http://www1.dshs.wa.gov/dasa/services/target/T2KMain.shtml) TARGET (treatment admissions to publicly funded treatment service)

SERVICES SECTION

- Information for the services section was provided by the programs or agencies providing the services and the sections were reviewed for accuracy by those agencies. Agencies, with various programs and staff within each, included: Washington State Department of Health, Washington State Department of Social and Health Services, Washington State Department of Health and Human Services, Office of Superintendent of Public Instruction, United States Department of Human and Health Services, Juvenile Rehabilitation Administration, Washington State Office of Financial Management, Washington Association of Community

and Migrant Health Centers, Division of Alcohol and Substance Abuse, Maternal and Child Health Bureau, Kitsap County Health District, and Public Health: Seattle-King County.

FOCUS GROUP SECTION

- This section includes qualitative information gathered from three sets of focus groups with adolescents and parents, conducted in 2004 and 2005. The first focused on defining a healthy adolescent and the second identified strategies for impacting abstinence education through a media campaign. The third set of focus groups targeted a diverse group of participants and focused on promoting adolescent health.

Technical Notes

Confidence Interval

Confidence intervals are a measure of the variability in the data. Generally speaking, confidence intervals describe how much different the point estimate could have been if the underlying conditions stayed the same, but chance had led to a different set of data. We describe a 95% confidence interval as having a 95% probability of covering the true value. A 95% confidence interval can be interpreted by saying that if we generate 100 such intervals (by conducting the experiment 100 times), then approximately 95 of them will contain the true parameter or estimate and 5 times it will not.

More information is available at: *Washington State Department of Health - Assessment Guidelines* (or http://www.doh.wa.gov/data/guidelines/ConfIntguide.htm) website.

P value

The ***p* value** obtained by a chi-square statistical test gives the probability that the observed difference could have been obtained by chance alone. Usually if the ***p* value** is <0.05, then a real association between the two variables is present (not just due to randomness).

When the chi-square test is applied to more than two variables, a *p* value of <0.05 tells you there is a statistically significant difference among the variables, but it does not tell you which ones are significantly different. A more advanced analysis is needed to determine this precisely. However, confidence intervals can be used in conjunction with *p* values to highlight where significant differences might be.

Rates: A crude rate is the number of health events in a specified place and time period divided by the number of people at risk for the health event in the same place and time. For example, the Washington child mortality rate in 2003 is the number of Washington children ages 1-19 who died in 2003 divided by the total number of Washington children ages 1-19 in 2003. Rates are usually multiplied by a constant such as 1,000 or 100,000 for ease of understanding, and are then reported as rate per 1,000 or rate per 100, 1000. Thus, child mortality is usually reported as deaths per 100,000 children 1-19 years. For additional information on calculating and interpreting rates, please see the Washington State Department of Health data guidelines at http://www.doh.wa.gov/Data/guidelines/Rateguide.htm

Chlamydia and Gonorrhea Missing Data on Race/ Ethnicity:

The Sexually Transmitted Disease **(**STD) confidential case report includes race and ethnicity as two separate categories. Race options include White, Black, Asian, Native Hawaiian/Other Pacific Islander, American Indian/Alaska Native, and Other/Unknown. Ethnicity options include Hispanic, Non-Hispanic, and Unknown. Following the enumeration technique of the United States Census Bureau and the Washington State Center for Health Statistics, race and ethnicity are counted separately. For example, if a case report indicates “White” and “Hispanic”, the case is counted both as White and as Hispanic. However, historical practice in disease surveillance by the Centers for Disease Control and Prevention often treats Hispanic as a racial category. In light of this difference, care must be taken in comparing Washington State data with national or other state data.

Additionally, a significant proportion of cases are reported without race and ethnicity information (race data missing for 17.8%, ethnicity data missing for 25.2% of chlamydia cases in 2004). No meaningful statements relating to relative differences or similarities in rates between groups can be made; these rates are presented for completeness and informational purposes only.

Use of 10th Grade HYS Data for National Comparisons: Data from 10th grade respondents was used throughout the report for national comparisons with the Youth Risk Behavioral Survey (a survey of 9-12th graders). Tenth graders in the 2004 HYS had a higher response rate than 12th graders (59% versus 49%). Additionally, by the 12th grade, many at risk youth have dropped out of school, thus the 10th grade results better represent the prevalence of risk behaviors.

Small numbers: To protect confidentiality in this report, rates are not presented if the number of health events was five or less. To prevent the need to suppress a lot of rates, where possible we have combined three years of data for the sub-group analyses: county, age, race/ethnicity and rural/urban classification. The interpretation of data based on small numbers is another concern. Small numbers primarily affects the county-specific rates, and can lead to instability of rates even when three years of data are used. We have provided county population data in the first section of the report and encourage readers to look at the population sizes and estimate the number of events prior to using the data for policy and program planning.

Definitions

Adolescents: Adolescents were defined as youth ages 12-19. When possible, data are presented for ages 12-19, but many data are not readily available by this specific age group.

Disability: To assess disability among youth, the Seattle Quality of Life Group (formerly known as the Youth Quality of Life (YQOL) Group), developed a 4-item screener based partly on the 1994 National Health Interview Survey on Disability (NHIS-D) (National Center for Health Statistics, 1994), and partly on the Questionnaire for Identifying Children with Chronic Conditions (QuICCC) (Stein, Westbrook, & Bauman, 1997), both of which are parent-reported. The Youth Disability Screener (YDS) uses a 'non-categorical' approach to disability identification. The YDS definition extends the HP 2010 definition by including a question regarding whether others would consider them to have a disability. This was taken from the NHOS-D and has its origins in the social model of disability which indicates that disability resides in the environment, rather than the individual. (For more information, Seattle Quality of Life Group website: http://depts.washington.edu/yqol/)

Race and Ethnicity: Rates in this report are presented by race and ethnicity because we observe disparities across these groups in Washington. Race/ethnic disparities are believed to reflect a mix of social, cultural and economic factors, not biology. One of the Healthy People 2010 goals is to reduce race/ethnic disparities and to monitor progress toward this goal, we must collect and present data by race/ethnicity. Current federal guidelines separate Hispanic ethnicity from race, and report on race and ethnicity separately. Federal guidelines also currently specify using five racial groups: White, Black or African American, Asian, Native Hawaiian or Pacific Islander, and American Indian or Alaska Native. We attempted to use a standard race/ethnicity coding system that followed the federal guidelines, but the data sources used in this report use five different grouping systems.

Data from the birth certificate use the federal guidelines and include the five race groups: White, Black, Asian, Native Hawaiian or Pacific Islander and American Indian/Alaska Natives as well as a breakdown for Hispanics and Non-Hispanics. Data presented this way includes low birth weight, prenatal care, preterm delivery and smoking during pregnancy.

Washington State population files group Asians with Native Hawaiian or Pacific Islanders. Thus, the adolescent pregnancy, intentional injury, child mortality and unintentional injury chapters use four race groups and the Hispanic ethnicity breakdown.

The Healthy Youth Survey determines race/ethnicity from one question so data based on this survey can not analyze race separately from ethnicity. Data from the Healthy Youth Survey have 7 groups: White, Black, Asian, Pacific Islander, Native American, Hispanic and Other. These data include: asthma, child weight and physical activity, food insecurity and hunger, and mental health.

Lastly, the National Survey of Children's Health and the National Survey of Children with Special Health Care Needs report data on Whites, Blacks, Multiple Race and Other.

Rural Urban Residence: Research has shown that there are differences in health status between residents of rural and urban Washington. Disparity data by urban or rural residence presented in this Needs Assessment uses the RUCA coding system. The **Rural Urban Commuting Area Codes (RUCA**) system is a classification system based on census tract geography developed by the US Department of Agriculture. Both population size and commuting relationships are used to classify

census tracts. The RUCA codes used here are based on the 2000 census data. Two levels of analysis are used in this Needs Assessment: county and zip-code based. Subcounty RUCA codes are more precise than county level RUCA codes and when possible, we used subcounty RUCA data.

Sub County level RUCA codes: Healthy Youth Survey data were analyzed using zip-code based RUCA codes. The Washington state Office of Community and Rural Health developed a four-Tiered Consolidation of RUCA codes for general analyses of sub-county data.

- **Urban Core Areas** - continuously built up areas 50,000 persons or more. These areas roughly correspond to US Bureau of the Census defined Urbanized Areas.
- **Urban Rural Fringe Areas** - areas with high commuting relationships with Urban Core Areas. Urban Rural Fringe Areas also include Large Town, Small Town and Isolated Rural Areas with high commuting levels to Urban Core Areas.
- **Large Town Areas** - towns with populations between 10,000 and 49,999 and surrounding rural areas with high commuting levels to these towns.
- **Small Town and Isolated Rural Areas** - towns with populations below 10,000 and areas with strong commuting relationships to these towns and isolated rural areas.

County-level RUCA codes: Because the population data at the subcounty level was not linked to the RUCA codes at the time this Needs Assessment was done, county level analysis was done for the vital statistics data presented here. The Washington state Office of Community and Rural Health developed a five-tiered Consolidation of RUCA codes for general analyses of county level data.

- **Urban / Urban fringe** - At least 75% of the county population resides in urbanized census tracts
- **Mixed Urban** – Between 50% and 75% of the county population resides in urbanized census tracts or tracts where more than 30% of the commuter flow is to an urbanized area
- **Large Town Rural** – At least 75% of the county population resides in a large town census (10,000 to 49,999) tract or tracts where more than 30% of the commuter flow is to a large town area
- **Mixed Rural** – Between 50% and 75% of the county population resides in a large town (10,000 to 49,999) or small town (no town over 9,999) census tract or tracts where more than 30% of the commuter flow is to these areas
- **Small town rural** - At least 75% of the county population resides in a small town or isolated census (no town over 9,999) tract or tracts where more than 30% of the commuter flow is to a small town area

For more information on Rural-Urban classifications, see the USDA site at
http://www.ers.usda.gov/briefing/Rurality/RuralUrbanCommutingAreas/

More information on the RUCA system is also available at:
http://www.doh.wa.gov/Data/Guidelines/RuralUrban.htm#4tier